# Exhibit 44

#### HIGHLY CONFIDENTIAL

## UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF CALIFORNIA SAN FRANCISCO DIVISION

IN RE CATHODE RAY TUBE (CRT) ANTITRUST LITIGATION	
TARGET CORP.,  Plaintiff,	Master File No. 3:07-cv-05944-SC  MDL No. 1917
v.	Individual Case No. CV 11-5514
CHUNGWHA PICTURE TUBES, LTD.; et al.,  Defendants.	
TARGET CORP.,  Plaintiff,  v.	Master File No. 3:07-cv-05944-SC  MDL No. 1917  Individual Case No. 13-cv-05686
TECHNICOLOR, et al.,  Defendants.	

REPORT OF ALAN S. FRANKEL, Ph.D.

April 15, 2014

#### **HIGHLY CONFIDENTIAL**

#### 1. Introduction

#### 1.1. Assignment

- 1. Plaintiff Target Corp. ("Target") is an operator of large-format general merchandise discount stores.<sup>1</sup> Headquartered in Minneapolis, Minnesota, Target sells consumables, electronics, sporting goods, toys, apparel, and home furnishings.<sup>2</sup>
- 2. Target alleges that Defendants and alleged co-conspirators in setting prices of cathode ray tubes ("CRTs") and that this caused Target to pay higher prices for "CRT Products" –in Target's case, televisions that contained CRTs³ than it would have paid absent the conspiracy.<sup>4</sup>
- 3. I have been asked by counsel for Target to: (1) calculate damages under the assumption that the Defendants are found to be liable in this litigation; (2) assume that the alleged conspiracy resulted in anticompetitive overcharges for CRTs the tubes incorporated into the CRT Products purchased by Target as determined by Dr. James McClave, another

<sup>&</sup>lt;sup>1</sup> See, e.g., Target Corporation, 10-Ks for the fiscal years ended February 2, 2008 and February 1, 2014.

<sup>&</sup>lt;sup>2</sup> Target (formerly Dayton Hudson Corp.) operates stores throughout the United States. *See* 10-Ks from FY1996 to FY2008. The original Dayton Company was founded in 1902 by George Dayton. It opened its first mass-market Target discount store in 1962. In 1969, the Dayton Company merged with J.L. Hudson Company to create the Dayton-Hudson Corporation. The Dayton-Hudson Corporation continued to operate department stores in Minnesota, North Dakota, South Dakota, and Wisconsin, under the name "Dayton's" and in Indiana, Michigan, and Ohio under the name "Hudson's" in addition to its mass-market discount stores. It acquired Mervyn's in 1978 and Marshall Field's, a department store chain operating in Illinois, Ohio, Texas, and Wisconsin in 1990. In 2000, the Dayton-Hudson Corporation was renamed Target Corporation, and "Dayton's" and "Hudson's" were merged into the "Marshall Field's. *See* "https://corporate.target.com/about/history".

<sup>&</sup>lt;sup>3</sup> Target also made a small number of direct purchases of CRT computer monitors from Philips and Tatung, and indirect purchases of monitors from other vendors, for which I am not computing damages.

<sup>&</sup>lt;sup>4</sup> Second Amended Complaint, Target Corp. v. Chungwha Picture Tubes, Ltd., et al. ("Second Amended Complaint"), October 3, 2013, ¶¶202-204. See also, Complaint, Target Corp. v. Technicolor, et al., December 9, 2013 ("Additional Complaint"), ¶¶, 113-114, 212. The conclusions and computations that I present in this report would either be unaffected by changes to the current Defendants and co-conspirators or could be modified through simple adjustments as described in this report to account for such changes.

expert retained by Target; (3) compute damages to account for the possibility that some overcharges resulting from the conspiracy might not be recoverable to the extent that they reflect CRTs manufactured by non-conspirators; and (4) calculate damages for Target's "direct" purchases of CRT Products from conspirators or their affiliates separately from its "indirect" purchases of CRT Products from other suppliers.

#### 1.2. Qualifications

I am Director of Coherent Economics, LLC. Since 1985, I have been a full-time 4. economic consultant. From 1985 until 1996, and from 2004 until I founded Coherent in 2008, I was an employee of Compass Lexecon (formerly Lexecon), most recently as a Senior Vice President.<sup>5</sup> Between 1996 and 2004, I was an employee of LECG (formerly Law and Economics Consulting Group). I am also a Senior Editor of the Antitrust Law Journal, the leading law review devoted to economic and legal issues arising in antitrust, competition and consumer protection disputes. I have served on the Editorial Board of the Journal since 1996. I received a B.A. in economics (with honors) in 1982, an M.A. in economics in 1985, and a Ph.D. in economics in 1986, each from the University of Chicago. My primary field of concentration in the Ph.D. program was Industrial Organization, which includes the analysis of competitive issues which arise in antitrust disputes. I have analyzed economic issues arising in hundreds of legal, regulatory and public policy disputes. I have been engaged as an expert economist by governmental agencies including the United States Department of Justice, the Canadian Competition Bureau, the United Kingdom Office of Fair Trading, and the New Zealand Commerce Commission, as well as by many private parties. I have appeared as an expert

<sup>&</sup>lt;sup>5</sup> I remain affiliated with Compass Lexecon as a Senior Advisor. Compass Lexecon, however, has had no involvement with my work in this engagement.

purchases of CRT Products for the portion of the period at issue in this case for which it no longer possesses detailed database information, as I describe in Part 4.2.3.<sup>26</sup>

35. Exhibit 15 lists the CRT Product vendors appearing in Target's data that Target contends represent "direct" purchases as defined or to be defined legally. I designate CRT Products purchased from any other vendors to be "indirect." Exhibit 16a shows Target's purchases of CRT TVs.

#### 4.2.2. Matching CRT Product Sizes to CRT Sizes

36. TV purchases are tracked by size and are matched to the appropriate CPT size. Stated TV screen sizes are typically one inch smaller than the CPTs incorporated within each TV for TVs up to 25 inches (diagonal size). The TV screen sizes are typically two inches smaller than the CPT sizes for larger TV sizes. I understand that this results from the masking that was used around the perimeter of the TV. The pattern is apparent when comparing the tube sizes in data provided to me by Dr. McClave with the TV sizes included in the purchase records of the fifteen firms.<sup>27</sup> Infrequently (across all of the firms for which I have compiled purchase data), I identified a few TV units that were described with sizes not corresponding to the typical one-

<sup>&</sup>lt;sup>26</sup> The absence of definitive data from which to compute damages, and the resulting need to make reasonable estimates, is a common occurrence in the analysis of antitrust damages. This arises naturally in the estimation of overcharges, because the "but-for" prices by definition cannot be directly observed and also because the defendants' conduct itself makes precision more difficult. See, e.g., American Bar Association, Proving Antitrust Damages (2<sup>nd</sup> ed. 2010), pp. 55-56. In this case, the long period of time during which Defendants and their coconspirators are alleged to have engaged in unlawful, anticompetitive conduct and concealed that conduct, and in some cases their own lack of production of comprehensive sales records of finished products (which in any event would not encompass "indirect" purchases by Target), means that a portion of the actual quantities purchased by Target needs to be estimated. As explained below, in the absence of actual purchase data for Target for some years, I estimate Target's CRT Product purchases based on data that I regard as reliable and the best available data. I apply extrapolation methods to that data which generate results that I regard as reliable and conservative. <sup>27</sup> For example, 13-inch TVs were very popular. There are no 13-inch CPTs in Dr. McClave's data, and a very large number of 14-inch CDTs. 24, 25 and especially 27-inch (the overall most popular size, accounting for 22% of total units) TVs were popular sizes, with few 23, 26, or 28-inch models. There are correspondingly large numbers of 25, 26 and especially 29-inch CPTs in Dr. McClave's database, reflecting the one-inch difference up to 25-inch TVs/26inch CPTs, and the two-inch difference above that size.

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Exhibit 15 - Vendors Designated as "Direct" Purchases

Plaintiff	Conspirator	Direct Vendor Names Appearing in Data	
	Daewoo	DAEWOO	
		DAEWOO ELEC AMERICA I	
		DAEWOO ELECAMERICA /	
	Panasonic	PANASONIC	
		PANASONIC CORP OF NAM	
	Philips	PHILIPS	
		PHILIPS CONSUMER ELEC	
Target		PHILIPS CONSUMER ELEC	
	Samsung	SAMSUNG	
		SAMSUNG ELECTRONICS /	
		SAMSUNG ELECTRONICS O	
	Thomson	RCA	
		THOMSON INC	
	Toshiba	TOSHIBA	
		TOSHIBA AMERICA CONSU	